Open Source Art, Music, and Culture

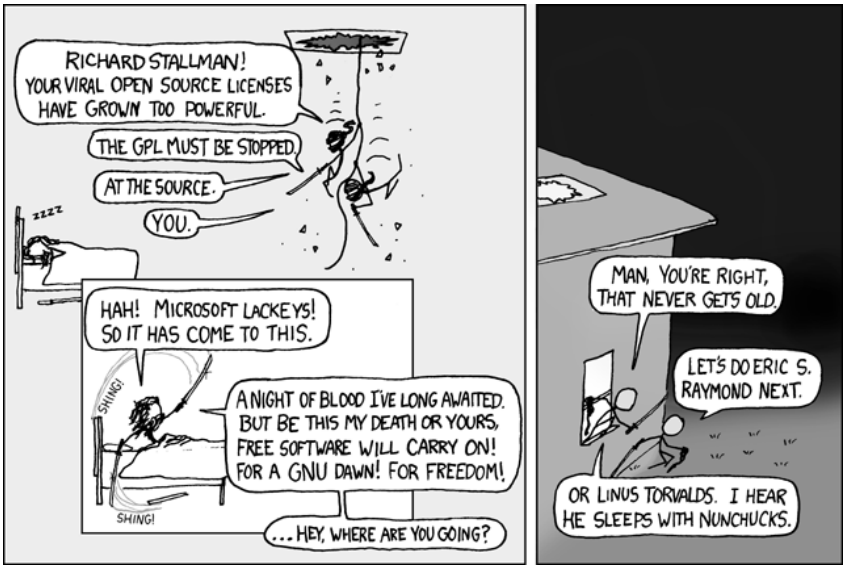
IHSS 1965 - Syllabus, Fall 2016

Lectures, All Sections: Monday, 4-6 PM
Studio:
Section 01: Wednesday, 12-2 PM
Section 02: Wednesday, 3-4 PM
Section 03: Wednesday, 12-2 PM
Section 04: Wednesday, 3-4 PM

Professors:
STS Lecture: Jim Malazita (malazj@rpi.edu)
ARTS Studios: Shawn Lawson (lawsos2@rpi.edu) & Silvia Ruzanka (ruzans@rpi.edu)

Teaching Assistants: Kat McDermott & Eric Miller

Introduction:



The concept of "Open Source," once exclusively linked to a certain kind of politically and economically engaged set of software production, has experienced a period of growth and transformation in the 21st Century. "Open Source" projects can now be found in disciplines and activities ranging as wide as computer science, hardware development, artistic practice, design, bio hacking, and social justice work, as well as in artistic and technological experimentations in LGBTQ and racially intersectional communities. Though "Open Source" practices across all these domains vary wildly, a common thread that runs through all these groups is the commitment to collaboration and to distributed "making" tools. Through a hybrid of readings, discussions, and collaborative papers and art projects, this class will explore the dynamics and politics of Open Source knowledge, collaboration, and distributed technical and artistic production.

Learning Outcomes:

Upon completion of this course, students should:

- Be able to articulate how different forms of "knowledge-making" work, and how those forms can be culturally legitimized and de-legitimized through arts, computing, and open source projects
- Gain a basic understanding of the political and cultural history of the Open Source movement and its fragmentations and transformations
- Acquire a basic familiarity and skill with open source digital art and design tools
- Be able to express social and political thought through those design tools

Texts:

Readings will be posted on the course's Blackboard Page.

Assignments and Grade Breakdown:

Studio Project 1 – 15 points
Studio Project 2 – 15 points
Studio Project 3 – 15 points
Studio Project 3 Final Write Up – 10 points

Group Paper 1 – 15 points
Group Paper 2 – 15 points

Reading Responses – 15 points

Project Descriptions:

All text portions of projects (papers, write-ups) must be submitted to the course's Blackboard page by midnight the night the assignment is due.

All Citations should use the Chicago Manual Of Style Guide:
(http://www.chicagomanualofstyle.org/tools_citationguide.html)

Group Paper 1: Open Source Community Analysis
Minimum Word Count – 5000 words

Students will break into groups of 4 to 5 with other students in their studio section. Students teams will then be assigned a FLOSS group or collective—these collectives will vary in their specific take on FLOSS, and will range from anything from an Open-Source software community to a feminist hacker collective. Student teams will then have to perform a social scientific analysis of that group, through investigation of that group's produced content and media. Through these various data sources, students will then

interpret and answer the following questions, **through the use of peer-reviewed sources (minimum count of 10**):

- What are the groups' professed political goals? How do they aim to achieve them?
- How does that group disseminate knowledge—both ingroup and outgroup?
- How is group membership obtained? How is it maintained?
- What is the organization structure of the group? Who decides what projects get worked on? Are they largely individual projects, or collective projects?
- What materials are involved in the group production of knowledge (note: software also counts as material. Also be sure to go beyond the constructed object when thinking about what materials are used).
- What roles do the group members say gender, race, and political orientation play in community dynamics? What are the difference between the way groups talk about themselves, and they way they act?
- How are they like FLOSS groups that seem to construct themselves around similar issues (i.e., other OSS privacy groups, other Feminist collectives)? You should use peer-reviewed research to find information on other groups.

Students will be required to submit an outline of their paper to Professor Malazita and their Studio TA no later than one week before the paper deadline.

Group Paper 2: Open Source Speculative Design Document
Minimum Word Count – 5000 Words

Working in teams of 4 to 5, students will collaborate on an assigned project to outline a speculative Open Source project/product. (Note: these problems are designed to encourage the student to think outside the bounds of "normal" OS computing and hardware; students may want to read ahead to the "QueerOS" assignment when beginning the project.)

The main focus of the critical design project will be to "queer" or "decolonize" an open source project as best we can in a three-week group project. Student groups will select one open source software project that has produced a material interface that students can analyze using material from lectures, readings, and from peer-reviewed social science, arts, and humanities sources. Students will study how the visual aesthetics, interface logics, programming, and/or means of access and collaboration implemented by that interface represent or reject dominant forms of historical and political thought. Students will then select **one** of those elements, and create a design document for a "vaporware" speculative interface that either subverts systems of power integrated into that element, or augments forms of resistance expressed through that element.

The design document must address the three major themes of the course: collaboration, situated knowledge, and artistic/technical production.

- Who are some of the user groups that you anticipate being able to interact with and collaborate through your speculative interface? Who do you anticipate will not be able to collaborate as fully?
- What kinds of knowledges and contexts are built into your system? How did they get there? (Remember to include your own role as positioned designers).

- What kinds of cultural and material metaphors will users need to rely upon in order for the interface to feel "intuitive"? Who has access to these metaphors? Who doesn't?

Students will be required to submit an outline of their paper to Professor Malazita and their Studio TA no later than one week before the paper deadline.

Studio Project_1: Exquisite Collage

Studio Project 1 will be composed of two parts, a learning and knowledge sharing real-time stiching session, and a distributed screenprinting and stitching session.

Part 1:

Students will read Jack Bratich's "The Digital Touch, Craft-Work as Immaterial Labor and Ontological Accumulation," as well as "The Utopia of Ordinary Habit," a selection from Ann Cvetkovich's *Depression: A Public Feeling*. Students will then attend a stitching circle, to be hosted in the Digital Arts dormitory lounge in Cary Hall, which will be run by Professor Ruzanka, from 6-8 PM Monday night after lecture. Cross-stitching supplies will be provided by the course instructors.

Students will learn the basic skills of cross-stitching, and will discuss, as a group, while stitching, the ways in which "technical" knowledge is disseminated within craft groups, the similarities and differences between craft-based technical knowledge and computationally-based technical knowledge, the translatability of embodied and affective knowledge from the physical world to software, and the gendered dimensions of technical knowledge.

Part 2:

Collage:

- Compose a Utopian or Dystopian collage of a person, robot, or character using only open source licensed images.
- Final image must be 7 inches wide by 21 inches tall at 72 dpi
- All images must be black and white
- Image must be in jpg format
- Submit image to project assignment on LMS

Exquisite:

- Take a head, torso, or legs piece
- Needlepoint over the image
- Bring needlepoint to class
- Submit a photo of your needlepoint work to the assignment on LMS

Critique:

Needlepoint fabrics will be sewn together

Studio Project_2: Audio: Composing with Open Source Tools

Using the "PD lab.pd" patch from last week's Pure Data lab session as a starting point, create a musical composition that explores melodic sequence, rhythm, sample playback and basic synthesis.

Your composition may take any form and may be of any style of music. Some examples of approaches you might consider could include:

- a highly-rhythmic contrapuntal Bach fugue of oscillators driven by sequenced note arrays
- an abstract ambient soundscape blending slowed-down samples from soundsnap.com or freesounds.org
- a dynamic generative music system using keys on your computer's keyboard as control triggers and FM synthesis as a sound source
- a "radio-play" where you record your own voice speaking excerpts from Francis Bacon's "The New Atlantis" augmented by sample playback and synthesized sounds (see http://www.gutenberg.org/files/2434/2434-h/2434-h.htm)

Your composition must be created primarily in Pure Data. The output from your Pure Data patches must be recorded to one stereo .wav file. You may record multiple audio files in Pure Data and then build your piece using an audio editing tool like Audacity (download: http://www.audacityteam.org/).

To successfully complete the assignment, you must submit the following files compressed into one .zip file:

1) a stereo audio file that is your complete composition. 2) your Pure Data patches and audio samples used in creating your composition. 3) a brief written description of your composition including a Title, an explanation of how you created your project and what you were trying to accomplish.

Remember, help files in Pure Data can be accessed by right-clicking on any PD object, by accessing the "Help" menu, or by reading the online-documentation at http://msp.ucsd.edu/Pd_documentation/index.htm

Additionally, lists of objects and tutorials explaining their use can be accessed via the "Help Browser" (Help > Browser... > Pure Data), and more online resources for Pure Data can be found at:

http://puredata.info/

http://www.pd-tutorial.com/english/index.html

http://en.flossmanuals.net/pure-data/

https://sites.google.com/site/porres/Tut-Eng.zip?attredirects=0

Studio Project_3: Interactive

Develop a visual and audio project that reveals hidden biases/perspectives using Processing. This could be a system that investigates our current reality or that creates a new reality to tell the story of a different perspective – be it a person, an object or a spiritual/technological force.

Possible ideas

- Imagine utopian cyber-future, what would that look like?

- What biases would an Artificial Intelligence have if it were to design a utopia
- Color values from one culture to another, subverting cultural norms and expectations (EG white in China is death, red is lucky)
- Make visuals to go along with a sound that you recorded from contact mic or visuals that are reactive to microphone input
- Create a non-linear story that explores the idea of understanding of event from different perspectives
- Use the arduino to play with user's expectation with interaction with the computer\
- Create a poem generator. Look at the work of Ouilpo. Example http://www.bevrowe.info/Queneau/QueneauRandom_v4.html
- Play with the idea of randomness and order

Final Write Up
Write a 300-500 word self-reflective essay on how you see arts and music within your own creations and with specific examples of other artists and/or musicians and/or pop-culture using any definition of open source talked about in this course.

Reading Responses (Half a handwritten piece of loose-leaf each):

Every class meeting where a reading has been assigned, students will bring a handwritten response to the reading. Each handwritten response will very, very briefly summarize the reading as the student understands it, as well as list any questions, complaints, and inspirations the student has from the reading. At the end of the discussion section of class, students will be given 10 minutes to write a short, post-discussion response on the reverse side of their response sheet, taking into account the class discussion of the reading. These responses will be turned into the professor at the end of class, and will double as class attendance.

Every response will receive a grade of "Check," "Check Plus," or "Check Minus." Responses that demonstrate student engagement with the reading prior to class, and student attentiveness during discussion, will receive a "Check." Responses that show lack of engagement with the reading (**engagement is not the same as understanding!),** and a lack of attentiveness to the discussion, will receive a "Check Minus." Responses that indicate a superior engagement with the reading ahead of class time, and a high level of engagement during the discussion, will receive a "Check Plus." **A "Check" represents full credit for the assignment. A "Check Plus" effectively represents extra credit, and can theoretically raise a student's final grade above "100."**

Every reading assignment is worth 1 point. The grade breakdown per response is:

- Not Turning in a Response: 0 points, plus attendance penalty (unless registered with the professor)
- Check-Minus: .5 Points
- Check: 1 Point
- Check Plus: 1.5 Points

Schedule:

Week	Theme	Monday Reading	Assignments Due
Week 1, Aug 29th and 31st	Introduction Utopian/Dystopian What is Computing?	Syllabus overview, meet and greet	
Week 2, September 5th and 7th	Labor Day	Labor Day: NO CLASSES	"Conceiving Open Systems," by Chris Kelty
Week 3, September 12th and 14th	The History of "Open," of "Source," and of "Software"	"The Digital Touch: Craft-Work as Immaterial Labour and Ontological Accumulation," by Jack Bratich	
Week 4, September 19th and 21st	Coding Resistance: Making, Programming, and Knitting in Late Capitalism	"The Utopia of Ordinary Habit," a selection from Ann Cvetkovich's *Depression: A Public Feeling*	Studio Project 1 Deadline
Week 5, September 26th and 28th	Stealing, Appropriating, and Collaborating	"Toward an Open Source Poetics: Appropriation, Collaboration, and the Commons," by Stephen Voyce	Group Paper 1 Outline Due
Week 6, October 3rd and 5th	The Everyday Practices of FLOSS Developers	"The Social Production of Ethics in Debian and Free Software Communities," by E. Gabriella Coleman and Benjamin Hill	Group Paper 1 Due Friday, 10/7
Week 7, October 11th and 12th	Social and Cultural Capital, Questions of Access	Columbus Day: MONDAY CLASSES HELD ON TUESDAY "Practicing at Home: Computers, Pianos, and Cultural Capital," by Ellen Seiter	
Week 8, October 17th and 19th	What Can't be Coded?	"Digital Dead End: Trapped in the Digital Divide," by Virginia Eubanks	Studio Project 2 Deadline

Week 9, October 24th and 26th	The Embedded Politics of Computing	"Can an Algorithm be Agonistic?" by Kate Crawford	
Week 10, October 31st and November 2nd	BroCoders: What Counts as "Coding," What Counts as "Work?"	"Masculine Culture," by Judy Wajcman AND "Why I am Not a Maker," by Debbie Chachra	
Week 11, November 7th and 9th	Queering the Ontologies of Computing	"QueerOS: A Users Manual," by Fiona Barnett, et. al.	Group Paper 2 Outline Due
Week 12, November 14th and 16th	The Tyranny of Inclusivity	"Radical Inclusion? Locating Accountability in Technical DIY," by Christina Dunbar-Hester	Group Paper 2 Deadline
Week 13, November 21st	Hacking Systems, Hacking THE System	"(Re)Making the Internet: Free Software and the Social Factory Hack", By Kate Millbery	Thanksgiving Break: NO CLASSES
Week 14, November 28th and 30th	The "Results" of Our Work	"Live Coding the Law: Improvisation, Code, and Copyright," by Martin Zeilinger	
Week 15, December 5th and 7th	Open Sourcing the Body	"Open Source Estrogen," by Mary Maggic AND Open Source Gendercodes (http://opensourcegendercodes.com/projects/osg/)	Studio Project 3 Due
Finals Week			Studio Project 3 Write-Up Due

Attendance:

Students are expected always to be present during class and recitations. Excellence in submitted work will not make up for delinquency in attendance. **More than three unexcused absences will result in a lowering of your final course grade by one mark. More than eight absences will result in the failure of the course.** If you must miss a class, assignments are

due before the class period begins. Excusable absences include illness, family emergencies, and scheduled Rensselaer athletic events.

Academic Integrity:

Student-teacher relationships should be built on trust. Students should be able to trust that teachers have made responsible decisions about the structure and content of the courses they teach, and teachers must trust that the assignments students turn in are their own. Acts that violate this trust undermine the educational enterprise and contradict the very reason for your being at Rensselaer. *The Rensselaer Handbook of Student Rights and Responsibilities* defines various forms of academic dishonesty and procedures for responding to them. The policies laid out in the *Handbook* are intended to maintain a community of trust and will be strictly enforced. Please review these policies.

For this course, the following penalties will apply:

- Significant acts of plagiarism (e.g., text copied verbatim from an unidentified source): Failure of the course and a written judgment in the student's official record

- Minor acts of plagiarism (e.g., referencing the findings of others without appropriate citations): Failure of the assignment, plus reduction of final course grade by one letter grade

- Other acts of academic dishonesty: Penalties range from a warning to reduction of final grade by one letter grade to failure of the course, depending on the severity of the violation as determined by the instructor As is evident above, penalties for plagiarism are significant. All direct use of another person's words must be placed inside quotation marks. You must also indicate where you paraphrase another's work and where you borrow another's specific ideas or interpretations. If you have questions regarding proper citation practices, see the instructor for clarification *before* the assignment is submitted. While collaboration is encouraged throughout the course, others cannot do work for you. All assignment activities must be carried out by the individual or team members submitting the assignment for a grade. Other people may show you *how* to do something (say, when using computer software), but you must follow up by doing the work yourself. *The Rensselaer Handbook* provides specific procedures by which a student may appeal a grade. You should speak to the professor before initiating an appeal. If this does not lead to satisfactory resolution, you have the option of appealing your grade by writing to the head of the STS Department no later than 10 days after your grade has been posted.